CLAIMS:

1. A wavelength tunable resonator comprising:

a first reflector (10) for reflecting a beam (5) of electromagnetic radiation towards a second reflector (50),

said second reflector (50) for reflecting said beam (5) back towards said first reflector (10), said first (10) and second reflector (50) defining a resonator having an optical path with a length,

a gain medium (20) for generating and emitting said beam (5) towards said first (10) and second reflector (50), said gain medium,

a prism (40), which is arranged within said optical path, serving to filter a wavelength of said beam (5),

wherein at least said second reflector (50) is arranged to be movable with respect to other optical elements within said resonator for increasing or decreasing said length of said optical path of said resonator, and

wherein said prism (40) is arranged to be rotatable about an axis (110) with respect to said other optical elements within said resonator for adapting said filtered wavelength range to said increase or decrease of said optical path length.

2. The resonator of claim 1,

wherein said gain medium (20) is a laser source comprising said first reflector (10) as a back facet and having a front surface, through which said beam is emitted towards said second reflector (50).

3. The resonator according to claim 1,

wherein said prism (40) and said second reflector (50) are mechanically coupled to a common support, said common support being movable by means of a drive for providing a combined movement of said second reflector and rotation of said prism.

4. The resonator according to claim 3 or any one of the above claims,

further comprising a first actuator for performing a fine-adjustment of said prism with respect to said means for rotating said prism.

5. The resonator according to claim 3 or any one of the above claims,

further comprising a second actuator for performing a fine-adjustment of said second reflector with respect to said means for moving said second reflector.

6. The resonator according to claim 2 or any one of the above claims,

further comprising a resonator lens for collimating said beam emitted from said laser source.

7. The resonator according to claim 4 or any one of the above claims,

wherein at least one of said first or second actuator is a piezo-actuator.

8. The resonator according to claim 1 or any one of the above claims,

wherein said prism (40) comprises a photonic crystal.

9. The resonator according to claim 1 or any one of the above claims,

wherein said prism (40) comprises a surface having an intersection point with said optical path of said incident beam, and

wherein said axis of rotation (110) is arranged along a line upon said surface, said line running through said intersection point on said surface.

10. The resonator according to claim 1 or any one of the above claims,

wherein said prism (40) is designed to direct a portion of said incident beam comprising said filtered wavelength towards said second reflector (50).